

### **REMARKS**

In response to the Office Action mailed May 2, 2003, claims 3, 4 and 15-19 have been amended. Claims 1-6 and 14-19 are now active in this application, of which claims 1 and 15 are independent. The Office Action indicates that claims 4, 14 and 18 are objected to but allowable if rewritten in independent form.

Based on the above Amendments and the following Remarks, Applicants respectfully request that the Examiner reconsider the outstanding objections and rejections and they be withdrawn.

#### ***Oath/Declaration***

In the Office Action, the Examiner stated that the Oath/Declaration is defective because the post office addresses for both inventors are missing. In this response, Applicants submit new corrected Oath/Declaration attached hereafter.

#### ***Title Objection***

In the Office Action, the title of the invention has been objected to for not being descriptive. This objection is respectfully traversed.

In this response, the title has been amended to read "THIN FILM TRANSISTOR SUBSTRATE HAVING BLACK MATRIX AND METHOD FOR FABRICATING THE SAME", which is believed to be clearly indicative of the present invention.

### ***Abstract Objection***

In the Office Action, the abstract of the disclosure has been objected to for being longer than 150 words. This objection is respectfully traversed.

In this response, the Abstract has been amended to be shortened as requested by the Examiner. Accordingly, withdrawal of the objection is respectfully requested.

### ***Claim Objection***

In the Office Action, claims 4 and 18 have been objected to for informalities. This objection is respectfully traversed.

In this response, claims 4 and 18 have been amended to correct the informalities therein. Amended claims 4 and 18 are now dependent from claims 3 and 17, respectively, as suggested by the Examiner. Also, claims 4 and 18 have been further amended solely for better wording and clarification.

### ***Rejections Under 35 U.S.C. §103***

In the Office Action, claims 1-3, 5 and 15-17 have been rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 5,926,235 issued to Han, *et al.* (“Han”) in view of U. S. Patent No. 5,128,786 issued to Yanagisawa, *et al.* (“Yanagisawa”). This rejection is respectfully traversed.

In this response, independent claims 1 and 15 have been amended. Amended claim 1 further recites “wherein the black matrix is wider the gate lines and data lines”. Amended claim 15 further recites “said gate lines are narrower than the black matrix” and “said data lines are

narrower the black matrix”. An example of this features are shown in FIG. 1 of the present application, in which the black matrix 94 is wider than the data lines 62 and the gate lines 22.

In the Office Action, the Examiner admitted “Han does not disclose a black matrix formed on the substrate, mesh-shaped with opening portions at pixel areas, and an insulating layer covering the black matrix and substrate” (Office Action, Page 3). Regarding these missing claimed features, the Examiner alleged “Yanagisawa does disclose a black matrix [16] formed on an analogous substrate for an analogous device, mesh-shaped with openings at the pixel areas, and an insulating layer [17] on and covering the black matrix and substrate” (Office Action, Page 3).

However, in FIGS. 4 and 5 of Yanagisawa, the display electrodes 14 are wider than the black mask units 16a. Thus, Yanagisawa fails to disclose the black mask units 16a that are wider than the display electrodes 14.

None of the cited references discloses a claimed black matrix that is wider than the gate lines and data lines. Thus, it is submitted that the asserted combination of the references would not have resulted in the claimed invention defined in claims 1 and 15.

Also, according to claims 1 and 15, the black matrix, the gate wire assembly and the data wire assembly are formed on the same insulating substrate. In Han, the gate line 107 and the data wire assembly 105, 106 are formed on the same insulating substrate 110, but no black matrix is formed on the substrate 110, as admitted by the Examiner. In Yanagisawa, the black mask units 16a and the display electrodes 14 are form on the same substrate 12 but the scanning electrodes 13 are formed on the different substrate 11. Yanagisawa fails to disclose the black mask units 16a, the display electrodes 14 and the scanning electrodes 13 formed on the same substrate.

Thus, none of the cited reference teaches or suggest the black matrix, the gate wire assembly and the data wire assembly are formed on the same insulating substrate, as claimed.

For these reasons, it is submitted that independent claims 1 and 15 are patentable over Yanagisawa. Claims 2, 3, 5, 16 and 17 that are dependent from claims 1 and 15 would be also patentable at least for the same reason. Accordingly, Applicants respectfully request that the rejection over claims 1-3, 5 and 15-17 be withdrawn.

In the Office Action, claims 6 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Han in view of Yanagisawa, and further in view of U. S. Patent No. 6,297,862 issued to Murade (“Murade”). This rejection is respectfully traversed.

Claims 6 and 19 are dependent from independent claims 1 and 15. As previously mentioned, claims 1 and 15 are patentable over Han and Yanagisawa. Murade teaches a black matrix layer 6 on the upper substrate 31. However, Murade does not disclose “the black matrix is wider than the gate lines and data lines”, as recited in claim 1 and “said gate lines are narrower than the black matrix” and “said data lines are narrower than the black matrix”, as recited in claim 15. Also, Murade fails to disclose the black matrix, the gate wire assembly and the data wire assembly formed on the same substrate.

Since none of the cited references teaches or suggests these claimed features, it is submitted that claims 1 and 15 are patentable over Han, Yanagisawa and Murade. Thus, claims 6 and 19 that are dependent from claims 1 and 15, respectively, would be also patentable at least for the same reason. Accordingly, Applicants respectfully request that the rejection over claims 6 and 19 be withdrawn.

***Other Matters***


In this response, claims 3, 4 and 15-19 have been further amended solely for better wording and clarification purposes.

### CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, claims 1-19 are in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,



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Date: August 4, 2003

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**ATTACHMENT:   REPLACEMENT ABSTRACT  
CORRECTED OATH/DECLARATION**